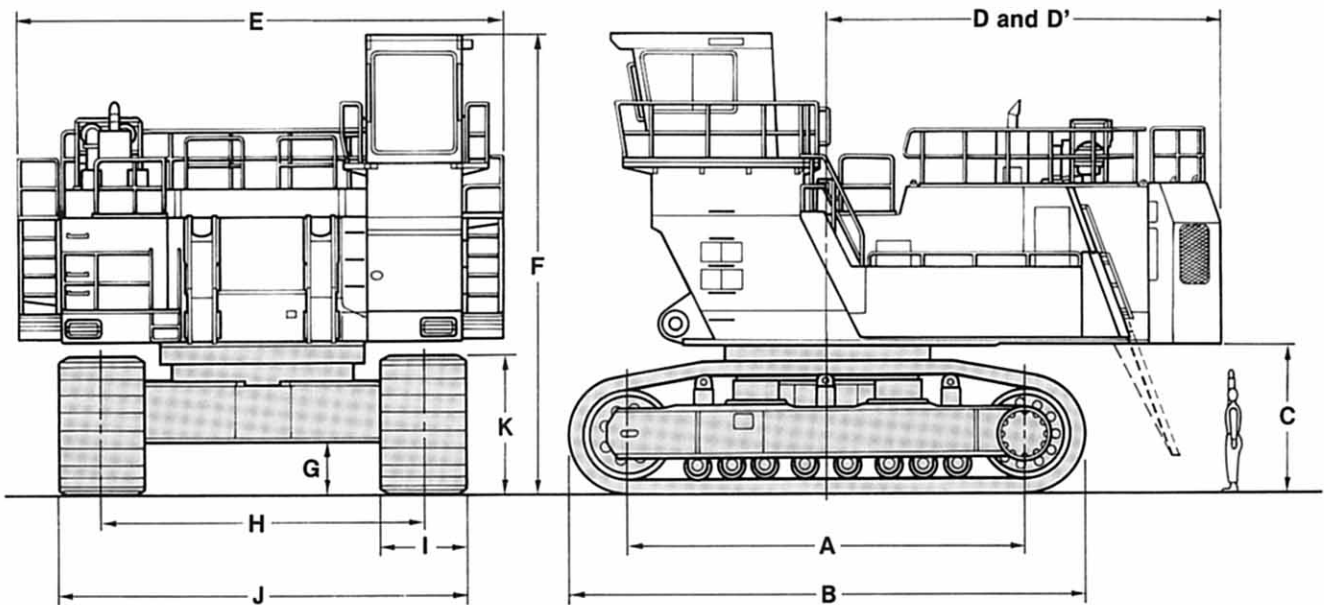


HITACHI

# SuperEX EX3500

- Rated Engine HP (gross)... 1 312 kW (1 760 HP)
- Operating Weight ..... EX3500-3
  - Loading Shovel: 334 000 kg (736 000 lb)
  - Backhoe: 330 000 kg (728 000 lb)
- Loading Shovel Bucket ..... PCSA Heaped: 18.0 — 25.0 m<sup>3</sup>  
(23.5 — 32.7 yd<sup>3</sup>)
- Backhoe Bucket..... PCSA Heaped: 17.0 — 25.0 m<sup>3</sup>  
(22.2 — 32.7 yd<sup>3</sup>)  
CECE Heaped: 15.0 — 22.0 m<sup>3</sup>

## Specifications



A	Distance between tumbler	6 660 mm (21'10")
B	Undercarriage length	8 700 mm (28'6")
C	Counterweight clearance	2 525 mm (8'3")
D	Rear-end swing radius	6 780 mm (22'3")
D'	Rear-end length	6 650 mm (21'10")
E	Overall width	8 240 mm (27'0")
F	Overall height of cab (with headguard)	7 750 mm (25'5")
G	Min. ground clearance	900 mm (2'11")
H	Track gauge	5 500 mm (18'1")
I	Track shoe width	1 270 mm (4'2")
J	Undercarriage width	6 770 mm (22'3")
K	Track height	2 305 mm (7'7")

## ENGINE

Model .....	Cummins KT38-C925
Type .....	Water-cooled, 4-cycle, V-type, 12-cylinder, turbo-charged, direct injection chamber-type diesel engine with CENTRY™
Rated flywheel horsepower (DIN 6271, net) .....	2 x 609 kW (2 x 829 PS) at 1 800 min <sup>-1</sup> (1 800 rpm)
Rated flywheel horsepower (SAE J1349, net) .....	2 x 609 kW (2 x 817 HP) at 1 800 min <sup>-1</sup> (1 800 rpm)
Maximum flywheel horsepower (SAE J1349, gross) .....	2 x 690 kW (2 x 925 HP) at 2 100 min <sup>-1</sup> (2 100 rpm)
Maximum torque .....	2 x 656 kW (2 x 880 HP) at 1 800 min <sup>-1</sup> (1 800 rpm)
	2 x 3 660 N·m (373 kgf·m, 2 700 lbf·ft) at 1 500 min <sup>-1</sup> (1 500 rpm)
Piston displacement .....	2 x 37.7 L (2 x 2 300 in <sup>3</sup> )
Bore and stroke .....	159 mm x 159 mm (6.3" x 6.3")
Starting system .....	24 V electric motor
Batteries .....	6 x 12 V, 6 x 170 AH
Preheating method .....	Ether aided

## HYDRAULIC SYSTEM

Hitachi's ETS (Electronic Total control System) can achieve maximum job efficiency and reduce fuel consumption/noise.

- E-P Control (Computer-aided Engine-Pump Control system) Main pumps regulated by electronic engine-speed sensing control system. Optimum operation mode selectable among 4 power modes depending on type of job.
- OHS (Optimum Hydraulic System) 6 main pumps, 2 independent swing pumps and travel tandem system enable both independent and combined operations of all functions.
- FPS (Fuel-saving Pump System) minimizes energy loss with superior performance in fine control.
- Auto-idling system for saving fuel and reducing noise.
- RMS (Relief-oil Minimizing System) reduces energy losses with minimum oil flow.
- Forced-lubrication and forced-cooling pump drive system.
- TIG (Tungsten Inert Gas) welding pipings.

Main pumps .....	6 variable-displacement, bent-axis piston pumps for front attachment and travel
Pressure setting .....	29.4 MPa (300 kgf/cm <sup>2</sup> , 4 270 psi)
Max. oil flow .....	6 x 550 L/min (6 x 145.3 US gpm, 6 x 121.0 Imp gpm)
Swing pumps .....	2 variable-displacement, bent-axis piston pumps for swinging
Pressure setting .....	29.4 MPa (300 kgf/cm <sup>2</sup> , 4 270 psi)
Max. oil flow .....	2 x 572 L/min (2 x 151.1 US gpm, 2 x 125.8 Imp gpm)
Pilot pumps .....	2 gear pumps
Pressure setting .....	4.4 MPa (45 kgf/cm <sup>2</sup> , 640 psi)
Max. oil flow .....	2 x 50 L/min (2 x 13.2 US gpm, 2 x 11.0 Imp gpm)

### Relief Valve Settings

Boom/arm/bucket circuit .....	29.4 MPa (300 kgf/cm <sup>2</sup> , 4 270 psi)
Travel circuit .....	29.4 MPa (300 kgf/cm <sup>2</sup> , 4 270 psi)
Swing circuit .....	29.4 MPa (300 kgf/cm <sup>2</sup> , 4 270 psi)
Pilot circuit .....	4.4 MPa (45 kgf/cm <sup>2</sup> , 640 psi)

### Hydraulic Cylinders

High-strength piston rods and tubes adopted. Cylinder cushion mechanisms are provided for boom, arm and bucket cylinders. Boom cylinder ends use self-alignment spherical bearings to avoid bending force. Bucket cylinder of loading shovel is provided with protector.

### Cylinder Dimensions

#### Loading shovel

	Quan.	Bore	Rod diameter
Boom	2	360 mm (14.2")	260 mm (10.2")
Arm	1	300 mm (11.8")	220 mm ( 8.7")
Bucket	2	280 mm (11.0")	200 mm ( 7.9")
Dump	2	225 mm ( 8.9")	130 mm ( 5.1")
Level	1	360 mm (14.2")	260 mm (10.2")

#### Backhoe

	Quan.	Bore	Rod diameter
Boom	2	360 mm (14.2")	260 mm (10.2")
Arm	2	300 mm (11.8")	220 mm ( 8.7")
Bucket	2	250 mm ( 9.8")	180 mm ( 7.1")

### Hydraulic Filters

All hydraulic circuits have high-quality hydraulic filters for protection against oil contamination and longer life of hydraulic components. 8 full-flow filters of 10 μm are built in return circuit, 8 high-pressure line filters of 80 meshes, 2 drain filters of 10 μm in swing and travel motor drain lines, 3 μm by-pass filter in oil cooler by-pass line, 10 μm pilot filter in pilot control circuit, and suction filters in suction line. These filters are centralized in arrangement for facilitating maintenance.

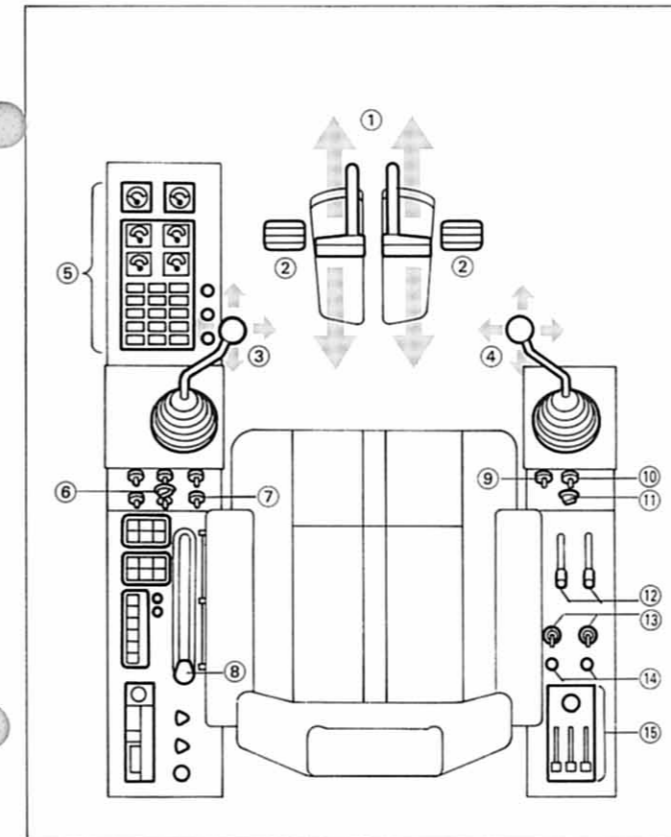
## CONTROLS

### 2 Implement Levers

Remote-controlled joystick hydraulic servo system. Right lever is for boom and bucket control, left lever for swing and arm control. For loading shovel, 2 pedals provided for opening/closing the bottom dump bucket, Auto-Leveling Crowd Mechanism featuring simplified level crowding is provided as standard.

### 2 Travel Levers with Pedals

Remote-controlled hydraulic servo system. Independent drive at each track allows counterrotation of tracks.



- 1 Travel levers with pedals
- 2 Bucket open/close pedals (Loading shovel)
- 3 Swing/Arm control lever
- 4 Boom/ Bucket control lever
- 5 Monitor panel
- 6 Power mode switch
- 7 Auto-idling switch
- 8 Parking/Traveling speed selector lever
- 9 Fast filling system switch (option)
- 10 Level luffing switch (circular arc retracting: Loading shovel)
- 11 Emergency engine stop switch
- 12 Fuel (throttle) lever
- 13 Engine starter switch
- 14 Ether switch (in cold conditions)
- 15 Air conditioner switch (option)

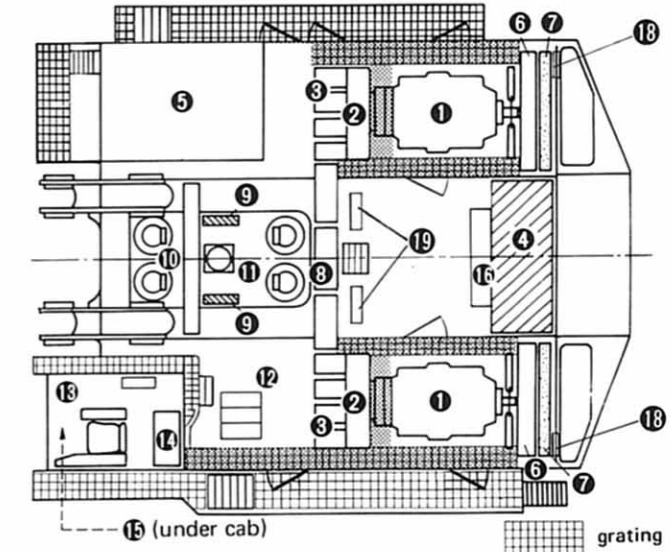
## UPPERSTRUCTURE

### Revolving Frame

A deep, full-reinforced box section. Heavy-gauge steel plates used for ruggedness. Disassembled into three units of main frame, left and right engine units.

### Deck Machinery

Maintenance accessibility is the major feature in the layout of deck machinery. Walkways provide easy access to engines, hydraulic and electrical components.



- 1 Engine x 2
- 2 Pump drive unit x 2
- 3 Hydraulic pump x 8
- 4 Hydraulic oil tank
- 5 Fuel tank
- 6 Engine radiator x 2
- 7 Hydraulic oil cooler x 2
- 8 Main control valve x 3
- 9 Swing control valve x 2
- 10 Swing device x 4
- 11 Center Joint
- 12 Batteries
- 13 Cab
- 14 Air-conditioning unit
- 15 Tool box (under cab)
- 16 Filters
- 17 Cooling unit
- 18 Pump drive transmission oil cooler
- 19 Hydraulic oil cooler

### Swing Mechanism

4 high-torque, axial-piston motors with two-stage planetary gear run in oil. Diametrically-opposed, well-balanced arrangement of 4 swing devices. Swing circle with dirt seals is a heavy-duty, triple-row, cylindrical roller bearing. Induction-hardened internal swing circle gear and pinion immersed in lubricant. Smooth hydraulic swing brake system with lock valve.

Swing speed..... 3.6 min<sup>-1</sup> (3.6 rpm)

## Operator's Cab

Steel construction with integrated, falling-object-protective structure meeting SAE FOPS. Independent, pressurized, 1 600 mm (5'3") wide, 2 150 mm (7'1") high, roomy 6.7 m<sup>3</sup> (8.7 yd<sup>3</sup>) cab with tinted-glass windows features all-round visibility.

Spring-suspension-type, fully-adjustable seat. Instrument and control panel is in easy range of the operator. Rubber-mounting and sound-proofing structure to reduce noise level and vibration. Air conditioner is optional.

Noise level..... 75 dB (A) in the cab; on max. engine speed under no-load condition

Eye level height..... 6 990 mm (22'11")

## UNDERCARRIAGE

### Tracks

Shovel-type undercarriage. Dual-flanged-type bolt linkage for side frame and X-form center frame assures durability. Heavy-duty track frame of all-welded, stress-relieved structure. Top-grade materials used for toughness. Lifetime-lubricated induction-hardened track rollers, idlers and drive tumblers with floating seals. Opposed double-type upper rollers for easy removal of mud. Track shoes of induction-hardened cast steel with triple grousers. Specially heat-treated connection pins. Hydraulic track adjuster provided with N<sub>2</sub> gas accumulator with relief valve. Track adjuster provided with protection device against abnormal tension. Travel motion alarm device.

### Shovel-type Undercarriage

Triple grouser track shoes of induction-hardened cast steel

Shoe width..... 1 270 mm (50")

### Numbers of Rollers and Shoes on Each Side

Upper rollers..... 3  
Lower rollers..... 8  
Track shoes..... 38

### Traction Device

Each track driven by 2 high-torque, axial piston motors, allowing counterrotation of tracks. 2-stage planetary gear plus spur gears reduction device. Dual-support-type traction device. Parking brake of spring-set/hydraulic-released disc type. This parking brake is manually releasable.

Travel speeds..... High: 0 to 2.4 km/h (1.5 mph)  
Low: 0 to 1.8 km/h (1.1 mph)

Maximum traction force ..... 1 760 kN  
(179 500 kgf, 395 700 lbf)

Gradeability ..... 30° (60%) continuous

## WEIGHTS AND GROUND PRESSURE

### Loading Shovel

Equipped with 18.0 m<sup>3</sup> (23.5 yd<sup>3</sup>; PCSA heaped) bottom dump bucket

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grousers	1 270 mm (50")	334 000 kg (736 000 lb)	171 kPa (1.74 kgf/cm <sup>2</sup> , 24.7 psi)

### Backhoe

Equipped with 10.0 m (32'10") boom, 5.0 m (16'5") arm, and 17.0 m<sup>3</sup> (22.2 yd<sup>3</sup>; PCSA heaped) bucket

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grousers	1 270 mm (50")	330 000 kg (728 000 lb)	171 kPa (1.74 kgf/cm <sup>2</sup> , 24.7 psi)

## SERVICE REFILL CAPACITIES

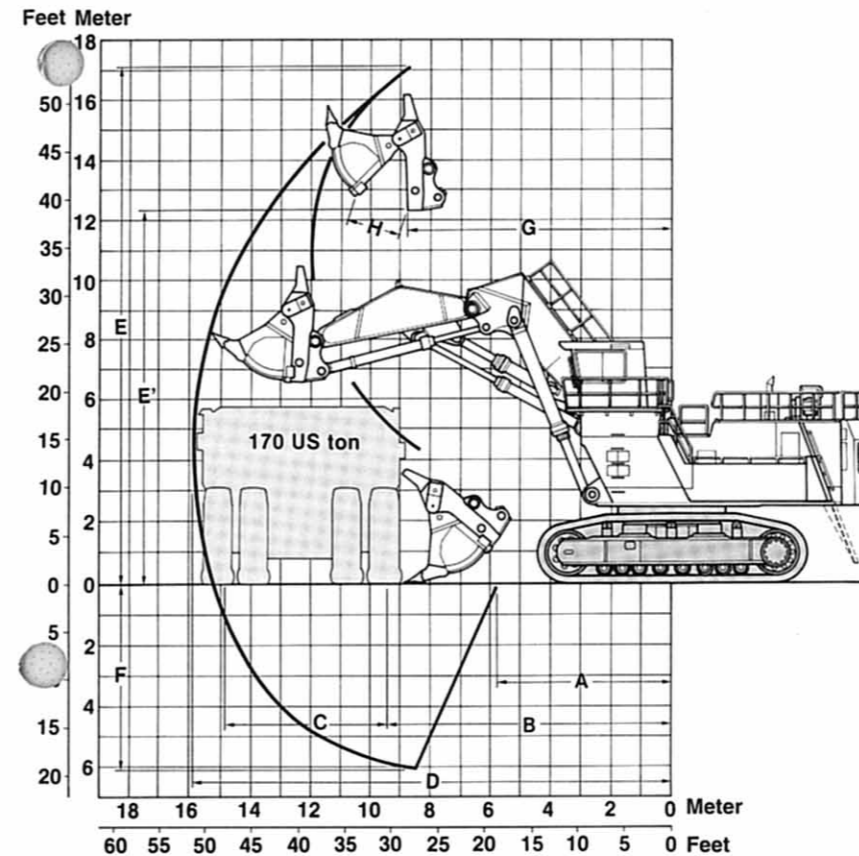
	liters	US gal	Imp gal
Fuel tank.....	5 000	1 321	1 100
Engine coolant..... (per engine)	250	66.0	55.0
Engine oil..... (per engine)	120	31.7	26.4
Pump drive..... (per engine)	25	6.6	5.5
Swing drive device..... (4 units)	4 x 75	4 x 19.8	4 x 16.5
Travel drive device..... (each side)	220	58.1	48.4
Hydraulic system.....	4 000	1 057	880
Hydraulic tank.....	1 660	439	365

## LOADING SHOVEL ATTACHMENTS

Boom and arm are of all-welded, low-stress, high-tensile strength steel full-box section design. Efficient, automatic level crowding achieved by one-lever control because parallel link mechanism keeps the bucket digging angle constant, and level cylinder circuit maintains the bucket height constant. (Auto-Leveling Crowd Mechanism)

- Buckets with cast-steel lip and replaceable shrouds. 110 kgf/mm<sup>2</sup> (156 000 psi) tensile strength steel bucket bottom plate
- Both circular arc retracting and horizontal retracting are possible (Loading shovel)
- Dual-support-type boom/arm/bucket pin linkage
- 3 main joint pins for front attachments are free-pin type.
- Pin seals (in all portions) plus O-ring at arm top

## WORKING RANGES



A	Min. digging distance	6 530 mm (21'5")
B	Min. level crowding distance	9 350 mm (30'8")
C	Level crowding distance	5 340 mm (17'6")
D	Max. digging reach	15 810 mm (51'10")
E	Max. cutting height	17 170 mm (56'4")
E'	Max. dumping height	12 420 mm (40'9")
F	Max. digging depth	6 040 mm (19'10")
G	Working radius at max. dumping height	8 250 mm (27'1")
H	Max. bucket opening width	2 400 mm (7'10")
Crowding force	18.0 m <sup>3</sup> (23.5 yd <sup>3</sup> )	1 196 kN (122 000 kgf, 269 000 lbf)
	20.0 m <sup>3</sup> (26.2 yd <sup>3</sup> )	1 196 kN (122 000 kgf, 269 000 lbf)
	25.0 m <sup>3</sup> (32.7 yd <sup>3</sup> )	1 177 kN (120 000 kgf, 264 000 lbf)
Breakout force	18.0 m <sup>3</sup> (23.5 yd <sup>3</sup> )	1 030 kN (105 000 kgf, 232 000 lbf)
	20.0 m <sup>3</sup> (26.2 yd <sup>3</sup> )	962 kN (98 000 kgf, 216 000 lbf)
	25.0 m <sup>3</sup> (32.7 yd <sup>3</sup> )	962 kN (98 000 kgf, 216 000 lbf)

Data in   are those of the Coal bottom dump type bucket.

### Buckets (PCSA heaped)

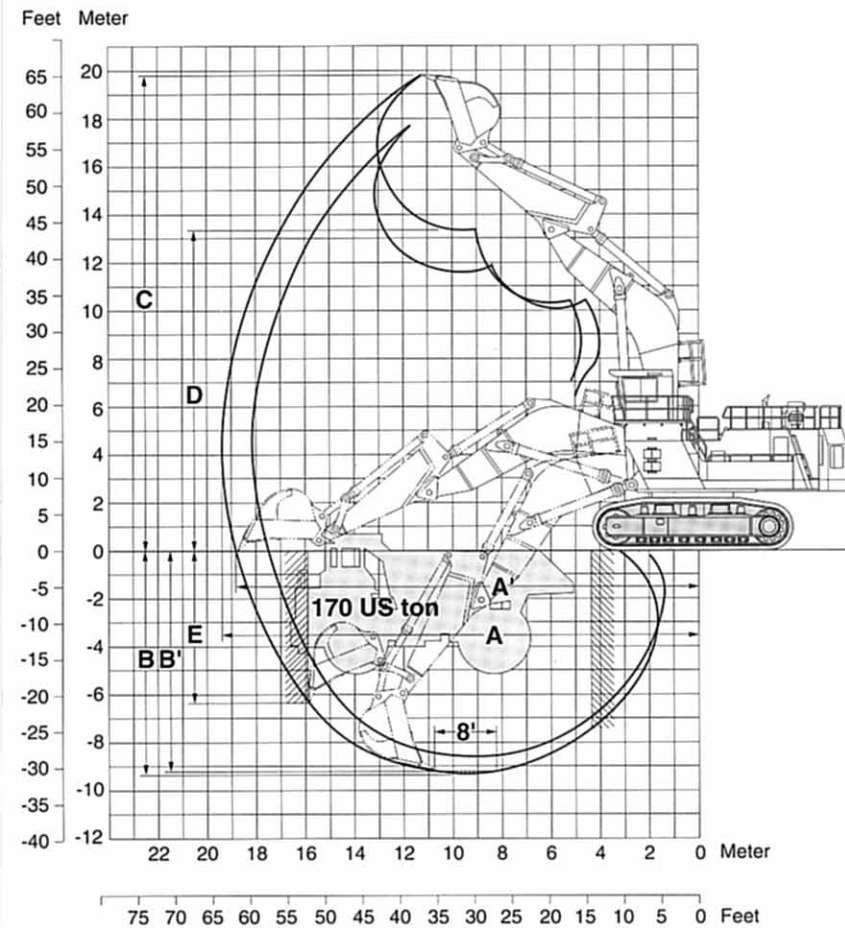
Capacity	Width	No. of teeth	Weight	Recommendation	Type
18.0 m <sup>3</sup> (23.5 yd <sup>3</sup> )	4 170 mm (13'8")	6	25 600 kg (56 400 lb)	⊙	Bottom dump type general purpose bucket
20.0 m <sup>3</sup> (26.2 yd <sup>3</sup> )	4 170 mm (13'8")	6	26 400 kg (58 200 lb)	○	Bottom dump type light duty bucket
25.0 m <sup>3</sup> (32.7 yd <sup>3</sup> )	5 400 mm (17'9")	6	27 040 kg (59 600 lb)	□	Bottom dump type coal handling bucket

- ⊙ General purpose for materials with density of 1 800 kg/m<sup>3</sup> (3 040 lb/yd<sup>3</sup>) or less
- Suitable for materials with density of 1 600 kg/m<sup>3</sup> (2 700 lb/yd<sup>3</sup>) or less
- Suitable for materials with density of 1 100 kg/m<sup>3</sup> (1 850 lb/yd<sup>3</sup>) or less

## BACKHOE ATTACHMENTS

Boom and arm are of all-welded, low-stress, full-box section design. Bucket of all-welded, high-strength steel structure.

## WORKING RANGES



	EX3500-3	EX3500-3 BE-front
Boom length	10.0 m (32'10")	9.6 m (31'6") BE-boom
Arm length	5.0 m (16'5")	4.5 m (14'9") BE-arm
A Max. digging reach	19 400 mm (63'8")	18 190 mm (59'8")
A' Max. digging reach (on ground)	18 860 mm (61'11")	17 600 mm (57'9")
B Max. digging depth	9 340 mm (30'8")	8 580 mm (28'2")
B' Max. digging depth (8' level)	9 200 mm (30'2")	8 490 mm (27'10")
C Max. cutting height	19 780 mm (64'11")	17 690 mm (58'0")
D Max. dumping height	13 300 mm (43'8")	11 590 mm (38'0")
E Max. vertical wall	6 300 mm (20'8")	4 060 mm (13'4")
Bucket digging force	ISO 1 050 kN (107 000 kgf, 236 000 lbf)	1 050 kN (107 000 kgf, 236 000 lbf)
	SAE, PCSA 932 kN (95 000 kgf, 209 000 lbf)	932 kN (95 000 kgf, 209 000 lbf)
Arm crowd force	ISO 951 kN (97 000 kgf, 214 000 lbf)	951 kN (97 000 kgf, 214 000 lbf)
	SAE, PCSA 922 kN (94 000 kgf, 207 000 lbf)	922 kN (94 000 kgf, 207 000 lbf)

## Buckets

Capacity		Width		No. of teeth	Weight	Recommendation	
PCSA heaped	CECE heaped	Without side cutters	With side cutters			10.0 m (32'10") boom 5.0 m (16'5") arm	9.6 m (31'6") BE-boom 4.5 m (14'9") BE-arm
17.0 m <sup>3</sup> (22.2 yd <sup>3</sup> )	15.0 m <sup>3</sup> (19.7 yd <sup>3</sup> )	3 200 mm (10'6")	—	5	14 500 kg (32 000 lb)	○	—
19.3 m <sup>3</sup> (25.2 yd <sup>3</sup> )	16.8 m <sup>3</sup> (22.0 yd <sup>3</sup> )	3 590 mm (11'9")	—	6	15 800 kg (34 800 lb)	○	—
20.6 m <sup>3</sup> (26.9 yd <sup>3</sup> )	18.0 m <sup>3</sup> (23.5 yd <sup>3</sup> )	3 710 mm (12'2")	—	6	16 600 kg (36 600 lb)	—	○
25.0 m <sup>3</sup> (32.7 yd <sup>3</sup> )	22.0 m <sup>3</sup> (28.8 yd <sup>3</sup> )	4 200 mm (13'9")	—	5	18 000 kg (39 700 lb)	□	—

○ General purpose for materials with density of 1 800 kg/m<sup>3</sup> (3 040 lb/yd<sup>3</sup>) or less  
 ○ Suitable for materials with density of 1 600 kg/m<sup>3</sup> (2 700 lb/yd<sup>3</sup>) or less  
 □ Suitable for materials with density of 1 100 kg/m<sup>3</sup> (1 850 lb/yd<sup>3</sup>) or less  
 — Not recommended

## SE STANDARD EQUIPMENT Standard equipment may vary by country, so please consult your Hitachi dealer for details.

### ENGINE

- 75 A alternator
- Heavy-duty-type air cleaner with dust ejector
- Cartridge-type engine oil filter
- Cartridge-type engine oil bypass filter
- Cartridge-type fuel filter
- Water filter
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system
- Emergency engine stop system

### HYDRAULIC SYSTEM

- E-P control system
- OHS (Optimum Hydraulic System)
- FPS (Fuel-saving Pump System)
- RMS (Relief-oil Minimizing System)
- Forced-lubrication and forced-cooling pump drive system
- Control valve with main relief valve
- Suction filter
- Full-flow filter
- Bypass filter
- Pilot filter
- Drain filter
- High-pressure strainer

### CAB

All-weather sound-suppressed steel integrated cab (meeting SAE FOPS). Reinforced/tinted (bronze color) glass windows. Parallel-link-type intermittent windshield wiper. Front windshield washer. Spring-suspension cushion-type fully-adjustable seat with armrests headrests and seat belt. Footrest. Air horn. Auto-tuning AM-FM radio with digital clock. Storage spaces. Floor mat. Rearview mirror. Evacuation hammer. Emergency rope.

### MONITORING ALARM SYSTEM

- Meters:  
Hourmeter. Engine oil pressure. Engine coolant temperature. Air pressure. Fuel meter.

- Warning lamps (Red):  
Engine oil pressure. Engine overheat. Hydraulic oil temperature. Pump drive oil pressure. Hydraulic oil level. Pump contamination. Minimum fuel level (700 l, 185 US gal, 154 Imp gal). Alternator charge. Hydraulic filter clog. Pilot filter clog. Air cleaner clog. Engine room emergency. Ladder. Auto lubrication. CENTRY™ engine system. Valve close. Fast filling. Engine controller.
- Pilot lamps (Green):  
Engine oil level. Pump drive oil level. Engine coolant level. Swing drive oil level. Hydraulic oil level.
- Alarm buzzers:  
Engine oil pressure. Engine overheat. Hydraulic oil temperature. Pump drive oil pressure. Engine room emergency. Valve close.

### LIGHTS

- 6 working lights. 2 access lights. 1 cab light. 1 under cab room light. 2 engine room lights. 2 pump room lights.

### UPPERSTRUCTURE

Lockable machine covers. Overall undercover. 40 500 kg (89 300 lb) counterweight. Lockable storage compartment. 3 lamps in engine room and storage compartment (under the cab). Pneumatic grease gun with hose reel. Hold-in-type ladder with spring-type balancer. All-pneumatic instruments centralized on panel under upperstructure. Control valves with main relief valves and over-load relief valves. Accumulator for pilot circuit.

### UNDERCARRIAGE

Parking brake is spring-set/hydraulic-released disc type. Hydraulic track adjuster provided with N<sub>2</sub> gas accumulator with relief valve. Travel motion alarm device. Lifetime-lubricated rollers, idler, and drive tumbler. Travel motor cover.

### MISCELLANEOUS

Standard tool kit. Grated Sidewalks and stairs. Handrails. Heavy-duty-type air cleaner with dust ejector. Radiator reserve tank.

## SE OPTIONAL EQUIPMENT Optional equipment may vary by country, so please consult your Hitachi dealer for details.

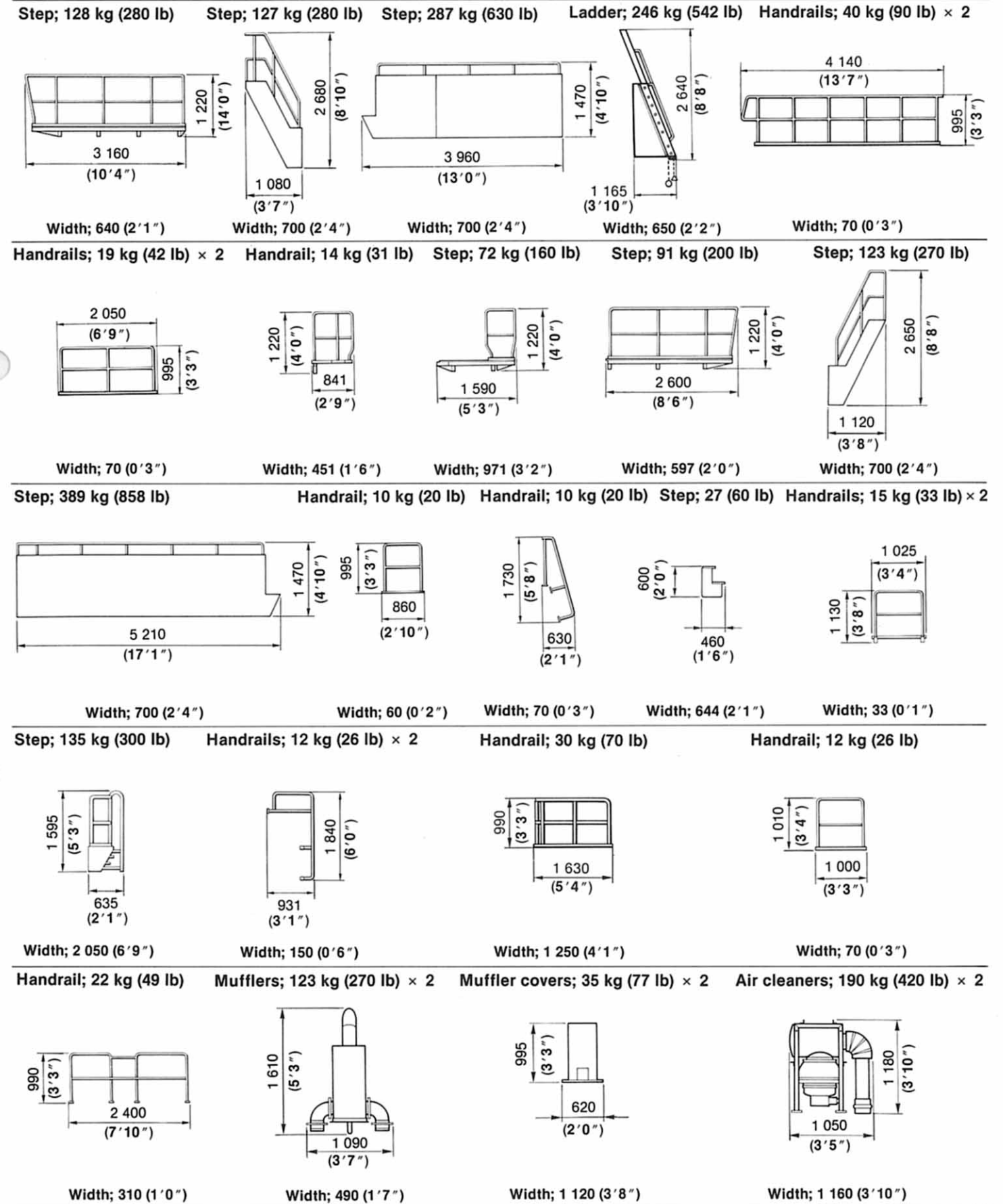
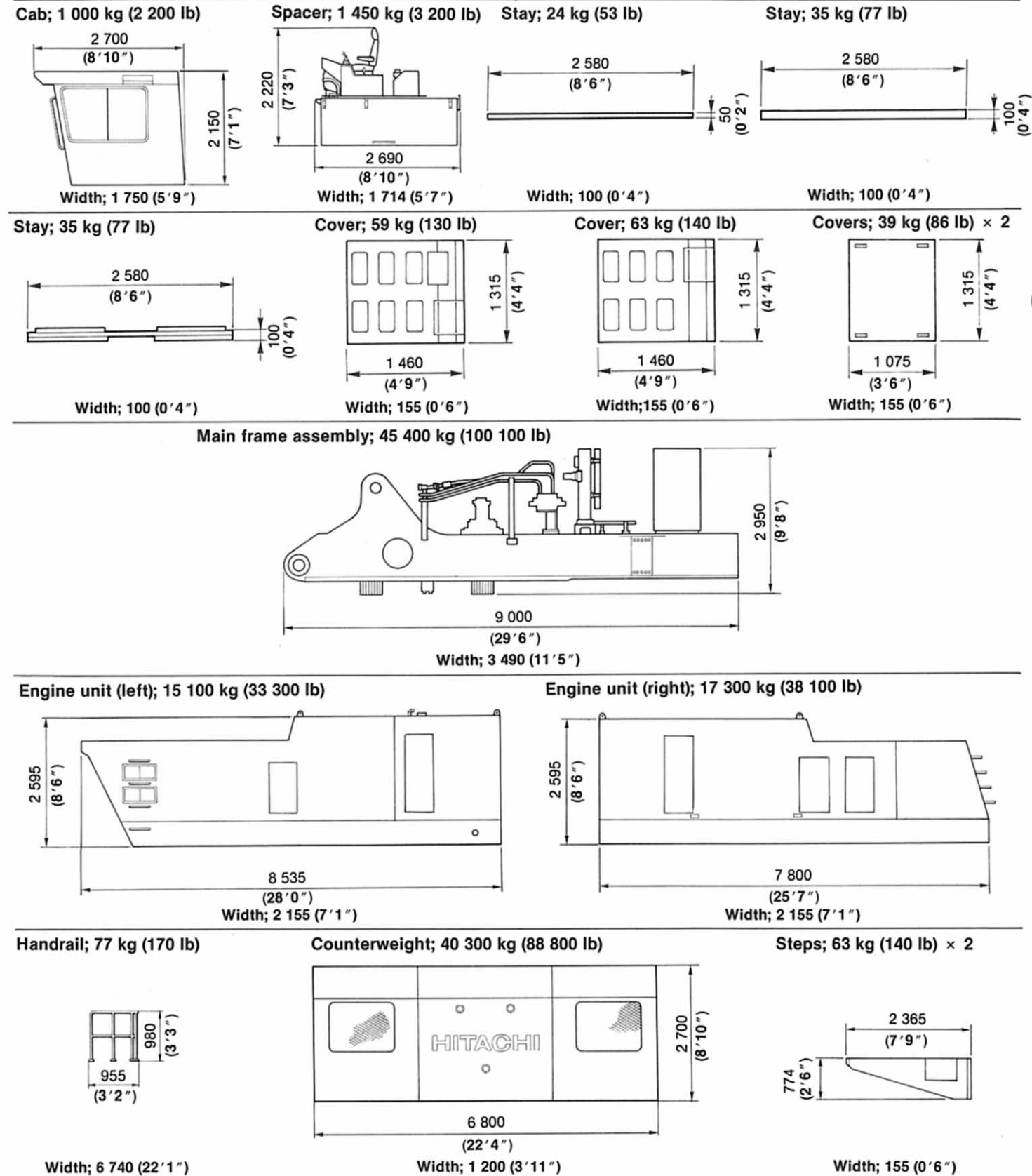
- Auto-lubrication system (Lincoln) for front-attachment pins, swing bearing, and center joint
- Air conditioner with defroster, damper, and filter
- Fast-filling system (Wiggins) for fuel, hydraulic oil, coolant swing device oil, and engine oil
- Cooling unit

Unit: mm (ft in)

- Easily assembled owing to local assembling system requiring no welding.
- Overall width of below 3 500 mm (11'6") during transportation.

## UPPERSTRUCTURE

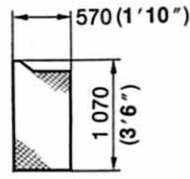
Unit: mm (ft in)



# TRANSPORTATION

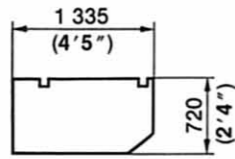
Unit: mm (ft in)

Covers; 23 kg (50 lb) × 2



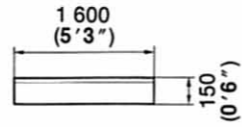
Width; 43 (0'2")

Covers; 27 kg (60 lb) × 2



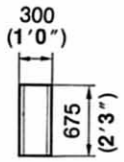
Width; 90 (0'4")

Covers; 5 kg (10 lb) × 2



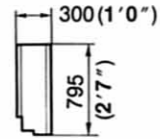
Width; 80 (0'3")

Covers; 4.5 kg (10 lb) × 2



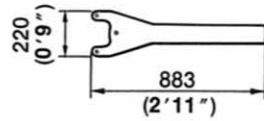
Width; 210 (0'8")

Covers; 5 kg (11 lb) × 2



Width; 210 (0'8")

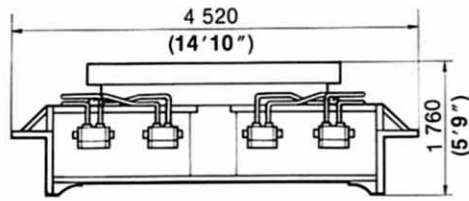
Stopper; 18 kg (40 lb)



Width; 25 (0'1")

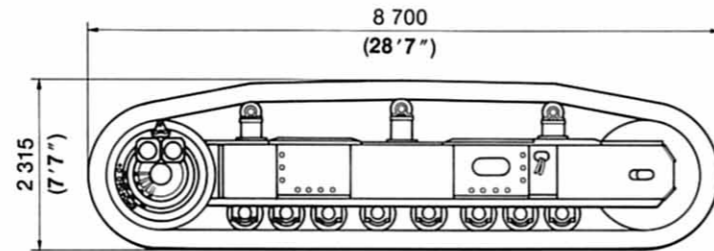
## UNDERCARRIAGE

Track center frame assembly; 31 300 kg (69 000 lb)



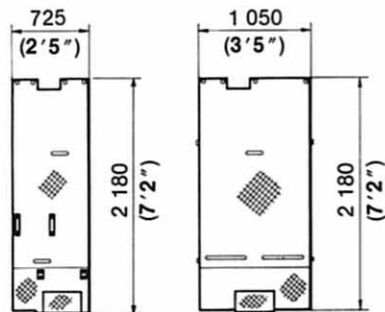
Width; 3 490 (11'5")

Track side frame assembly; 42 900 kg (94 600 lb) × 2

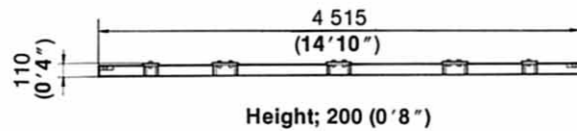


Width; 2 425 (7'11")

Motor covers; 90 kg (200 lb) 116 kg (255 lb)  
78 kg (170 lb) 112 kg (250 lb)

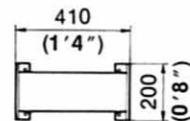


Motor cover stay; 92 kg (200 lb)



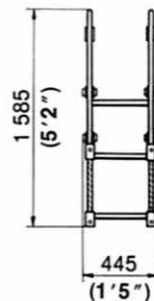
Height; 200 (0'8")

Step; 8 kg (18 lb)



Width; 325 (1'2")

Ladder; 16 kg (35 lb)

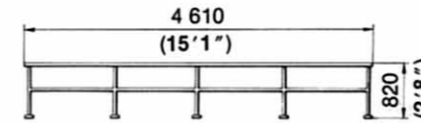


Width; 580 (1'5")

## LOADER ATTACHMENT

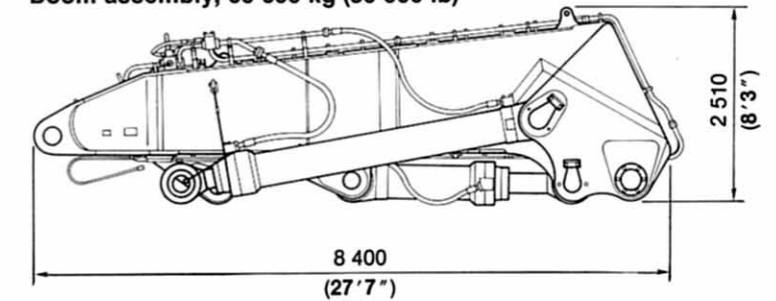
Unit: mm (ft in)

Handrails; 49 kg (108 lb) × 2



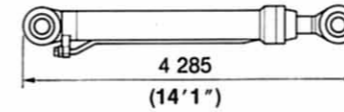
Width; 125 (0'5")

Boom assembly; 36 300 kg (80 000 lb)

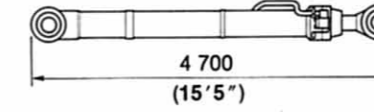


Width; 2 650 (8'8")

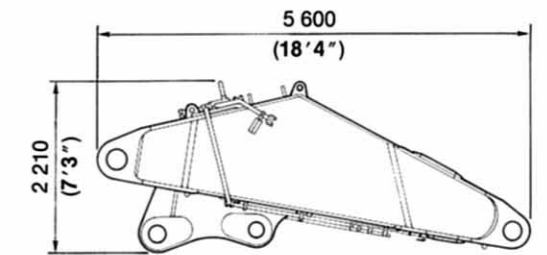
Arm cylinder; 2 850 kg (6 280 lb)



Bucket cylinders; 2 470 kg (5 450 lb) × 2

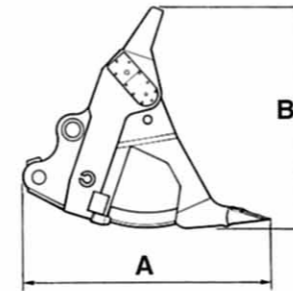


Arm assembly; 13 900 kg (30 650 lb)



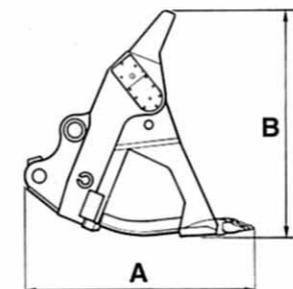
Width; 2 960 (9'9")

Bucket



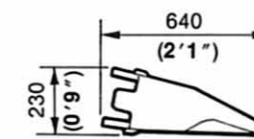
Bucket capacity	A	B	Width	Weight
18.0 m <sup>3</sup> (23.5 yd <sup>3</sup> )	4 080 mm (13'5")	3 730 mm (12'3")	4 170 mm (13'8")	25 600 kg (56 400 lb)
20.0 m <sup>3</sup> (26.2 yd <sup>3</sup> )	4 680 mm (15'4")	3 640 mm (11'11")	4 170 mm (13'8")	26 400 kg (58 200 lb)
25.0 m <sup>3</sup> (32.7 yd <sup>3</sup> )	3 710 mm (12'2")	3 770 mm (12'4")	5 400 mm (17'9")	27 040 kg (59 600 lb)

\*Without bucket points



Without bucket points

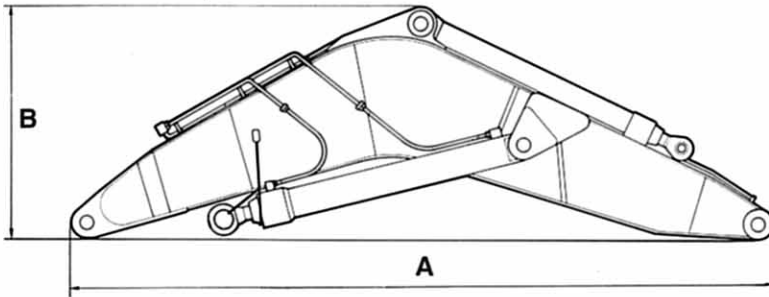
Points; 66 kg (150 lb) × 6



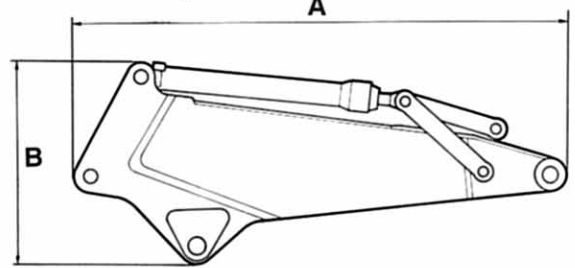
## BACKHOE ATTACHMENT

Unit:mm (ft in)

### Boom assembly



### Arm assembly



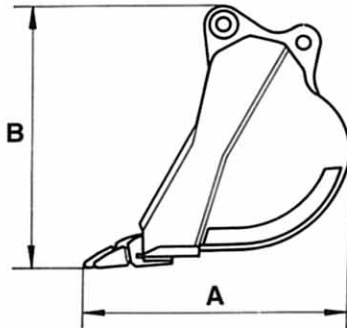
Boom length	A	B	Width	Weight
*9.6 m (31'6")	10 070 mm (33'0")	3 510 mm (11'6")	2 540 mm (8'4")	40 700 kg (89 700 lb)
10.0 m (32'10")	10 600 mm (34'9")	3 500 mm (11'6")	2 540 mm (8'4")	40 700 kg (89 700 lb)

\*BE-boom

Arm length	A	B	Width	Weight
*4.5 m (14'9")	6 040 mm (9'10")	2 930 mm (9'7")	2 110 mm (6'11")	23 300 kg (51 400 lb)
5.0 m (16'5")	6 800 mm (22'4")	2 900 mm (9'6")	1 850mm (6'1")	23 300 kg (51 400 lb)

\*BE-arm

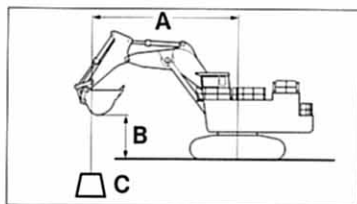
### Bucket



Bucket capacity		A	B	Width	Weight
PCSA heaped	CECE heaped				
17.0 m <sup>3</sup> (22.2 yd <sup>3</sup> )	15.0 m <sup>3</sup> (19.7 yd <sup>3</sup> )	3 650 mm (12'0")	3 200 mm (10'6")	3 200 mm (10'6")	14 500 kg (32 000 lb)
19.3 m <sup>3</sup> (25.2 yd <sup>3</sup> )	16.8 m <sup>3</sup> (22.0 yd <sup>3</sup> )	3 650 mm (12'0")	3 200 mm (10'6")	3 590 mm (11'9")	15 800 kg (34 800 lb)
*20.6 m <sup>3</sup> (26.9 yd <sup>3</sup> )	18.0 m <sup>3</sup> (23.5 yd <sup>3</sup> )	3 600 mm (11'10")	3 150 mm (10'4")	3 710 mm (12'2")	16 600 kg (36 600 lb)
25.0 m <sup>3</sup> (32.7 yd <sup>3</sup> )	22.0 m <sup>3</sup> (28.8 yd <sup>3</sup> )	—	—	4 200 mm (13'9")	18 000 kg (39 700 lb)

\*BE-bucket

# LIFTING CAPACITIES



A: Load radius  
B: Load point height  
C: Lifting capacity

## METRIC MEASURE

Rating over-side or 360 degrees Rating over-front

Unit: 1 000 kg

Conditions	Load point height m	Load radius												At max. reach					
		8 m		10 m		12 m		14 m		15 m		16 m				@ m			
Boom 10.0 m Arm 5.0 m Bucket PCSA: 17.0 m <sup>3</sup> CECE: 15.0 m <sup>3</sup> Shoes 1 270 mm	13								*26.8	*26.8						*14.1	*14.1	17.3	
	12								*31.3	*31.3						*13.5	*13.5	17.8	
	10								*33.1	*33.1	*35.5	*35.5	*30.9	*30.9		*12.7	*12.7	18.5	
	8								*34.3	*34.3	*37.0	*37.0	*35.8	*35.8	*27.4	*27.4	*12.3	*12.3	18.9
	6			*43.9	*43.9	*42.1	*42.1	*41.3	*41.3	*39.6	*39.6	*34.4	*34.4	*12.2	*12.2	*12.2	*12.2	19.1	
	4					60.1	*62.9	45.0	*49.9	39.2	*45.4	34.2	*39.0	*12.5	*12.5	*12.5	*12.5	18.9	
	2					56.5	*64.4	42.8	*51.7	37.5	*46.5	33.0	*41.5	*13.2	*13.2	*13.2	*13.2	18.5	
	0 (ground)			73.8	*80.6	54.0	*63.0	41.2	*49.8	36.3	*44.1	32.2	38.1	*14.4	*14.4	*14.4	*14.4	17.8	
	-2			72.5	*73.3	52.8	*58.0	40.4	*45.0	35.8	*38.5	*28.3	*28.3	*13.6	*13.6	*13.6	*13.6	16.8	
	-4		*72.1	*72.1	*61.1	*61.1	*48.5	*48.5	*35.1	*35.1	*25.3	*25.3							
	-5		*61.2	*61.2	*52.9	*52.9	*41.4	*41.4	*26.6	*26.6									

## ENGLISH MEASURE

Unit: 1 000 lb

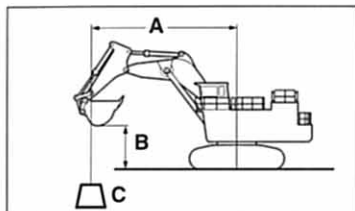
Conditions	Load point height ft	Load radius												At max. reach					
		25 ft		30 ft		35 ft		40 ft		45 ft		50 ft				@ ft in			
Boom 32'10" Arm 16'5" Bucket PCSA: 22.2 yd <sup>3</sup> Shoes 50"	40								*77.4	*77.4	*71.1	*71.1			*30.1	*30.1	58'1"		
	30								*73.8	*73.8	*79.2	*79.2	*70.0	*70.0	*27.5	*27.5	61'5"		
	25								*70.2	*70.2	*78.3	*78.3	*82.6	*82.6	*78.5	*78.5	*27.0	*27.0	62'3"
	20								*92.2	*92.2	*91.6	*91.6	*90.8	*90.8	*85.2	*85.2	*26.9	*26.9	62'7"
	15								*153.1	*153.1	*118.9	*118.9	104.9	*105.5	84.7	*93.6	*27.3	*27.3	62'4"
	10								157.5	*165.9	124.9	*138.1	100.6	*117.6	81.9	101.1	*28.2	*28.2	61'8"
	5								150.6	*167.3	119.8	*138.8	97.0	117.0	79.4	99.0	*29.7	*29.7	60'5"
	0 (ground)								145.9	*163.4	116.0	*135.8	94.2	113.6	77.6	94.2	*31.9	*31.9	58'6"
	-5			*183.5	*183.5	143.3	*153.9	113.7	*128.3	92.5	*106.4	76.8	*85.2	*34.3	*34.3	*34.3	*34.3	56'0"	
	-10			*162.7	*162.7	*138.5	*138.5	*113.0	*115.5	92.1	*93.8	*68.1	*68.1						
	-15		*147.7	*147.7	*135.0	*135.0	*116.3	*116.3	*95.8	*95.8	*72.9	*72.9							

- Notes:
1. Ratings are based on SAE J1097.
  2. Lifting capacity of the Super EX Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
  3. The load point is a hook (not standard equipment) loaded on the back of the bucket.
  4. \*Indicates load limited by hydraulic capacity.



# LIFTING CAPACITIES

# SuperEX



A: Load radius  
B: Load point height  
C: Lifting capacity

## METRIC MEASURE

Rating over-side or 360 degrees Rating over-front

Unit: 1000 kg

Conditions	Load point height m	Load radius												At max. reach					
		8 m		10 m		12 m		14 m		15 m		16 m				@ m			
Boom 9.6 m BE-boom Arm 4.5 m BE-arm Bucket PCSA:20.6 m <sup>3</sup> CECE: 18.0 m <sup>3</sup> Shoes 1 270 mm	13					*30.2	*30.2									*16.2	*16.2	15.8	
	12					*31.7	*31.7									*15.7	*15.7	16.3	
	10					*30.5	*30.5	*28.7	*28.7							*15.2	*15.2	17.1	
	8					*32.1	*32.1	*32.6	*32.6	*27.9	*27.9					*15.3	*15.3	17.6	
	6			*44.7	*44.7	*40.1	*40.1	*37.2	*37.2	*33.5	*33.5					*15.8	*15.8	17.7	
	4			*80.4	*80.4	58.9	*59.4	43.7	*44.9	37.8	*38.7	*27.2	*27.2			*16.9	*16.9	17.5	
	2			76.1	*81.7	55.4	*62.9	41.6	*49.7	36.2	*44.1	*28.3	*28.3			*18.6	*18.6	17.1	
	0 (ground)			73.5	*77.3	53.2	*60.3	40.1	*46.8	35.2	*40.5					*19.1	*19.1	16.3	
	-2		*62.6	*62.6	*67.7	*67.7	52.3	*53.4	39.6	*39.9	*31.6	*31.6							
	-4		*58.9	*58.9	*52.3	*52.3	*40.8	*40.8	*24.7	*24.7									
-5		*45.9	*45.9	*41.9	*41.9	*31.2	*31.2												

## ENGLISH MEASURE

Unit: 1000 lb

Conditions	Load point height ft	Load radius												At max. reach					
		25 ft		30 ft		35 ft		40 ft		45 ft		50 ft				@ ft in			
Boom 31'6" BE-boom Arm 14'9" BE-arm Bucket PCSA:26.9 yd <sup>3</sup> Shoes 50"	40							*69.2	*69.2							*35.0	*35.0	53'5"	
	30							*68.2	*68.2	*69.4	*69.4					*33.6	*33.6	57'0"	
	25					*67.8	*67.8	*73.3	*73.3	*74.2	*74.2	*59.2	*59.2			*33.9	*33.9	57'11"	
	20					*91.1	*91.1	*86.7	*86.7	*82.6	*82.6	*69.8	*69.8			*34.9	*34.9	58'3"	
	15					*151.2	*151.2	*112.6	*112.6	*96.1	*96.1	*78.2	*78.2			*36.5	*36.5	57'11"	
	10					155.1	*164.1	122.4	*135.6	97.9	*114.2	78.9	*86.3	*38.9	*38.9	*38.9	*38.9	57'2"	
	5					148.6	*163.6	117.5	*134.9	94.4	*112.5	76.7	*92.4	*42.4	*42.4	*42.4	*42.4	55'9"	
	0 (ground)					144.6	*157.0	114.2	*129.9	92.0	*107.3	75.4	*85.7	*42.1	*42.1	*42.1	*42.1	53'7"	
	-5			*169.7	*169.7	142.8	*144.0	112.4	*119.5	90.8	*97.0	*71.1	*71.1						
	-10		*137.2	*137.2	*143.9	*143.9	*124.1	*124.1	*102.5	*102.5	*79.2	*79.2							
-15		*113.1	*113.1	*110.0	*110.0	*95.7	*95.7	*75.9	*75.9										

- Notes: 1. Ratings are based on SAE J1097.  
2. Lifting capacity of the Super EX Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.  
3. The load point is a hook (not standard equipment) loaded on the back of the bucket.  
4. \*Indicates load limited by hydraulic capacity.

These specifications are subject to change without notice.

Hitachi Construction Machinery Co.,Ltd.

Head office: Nippon Bldg., 6-2, 2-chome, Ohtemachi,  
Chiyoda-ku, Tokyo 100, Japan

Telephone : Tokyo(03)3245-6390

Facsimile : Tokyo(03)3246-2609